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ABSTRACT

A study investigated linguistic, rhetorical, and strategic variables of the writing processes and products of 3 groups of graduate and undergraduate students: 28 native English-speaking Americans; 28 Koreans studying in the United States; and 90 Korean students in Korea. The last two groups were learners of English as a Second Language (ESL). Data were drawn from persuasive writing assignments, follow-up questionnaires about the writing process, and writing background and attitude surveys. Writing samples were analyzed for 10 linguistic variables (length variables, cohesion variables, discourse markers), 13 rhetorical variables (coherence variables, openings, closings, rhetorical questions, reader inclusion, counterarguments), and 12 strategic variables (outline, revision, writing confidence, writing attention, discourse knowledge use, audience awareness). Results indicate significant differences in process and product variables between native and non-native advanced writers and between non-native advanced and basic writers, which were significant predictors of writing quality. These variables were distributed across linguistic, rhetorical, and strategic categories suggesting that writing quality depends on all three groups of variables. Implications for ESL writing instruction are drawn. Contains 34 references. (MSE)

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Product and Process Aspects of NES/EFL Students' Persuasive Writing in English: Differences between Advanced and Basic Writers

JIN-WAN KIM

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Product and Process Aspects of NES/EFL Students' Persuasive Writing in English: Differences between Advanced and Basic Writers

JIN-WAN KIM

This paper was designed to investigate quantitative and qualitative differences of "product" and "process" variables between native and non-native "advanced" writers, and between non-native "advanced" and "basic" writers. It was found that a number of "product" and "process" variables that significantly differentiated between "advanced" and "basic" writers were also good predictors of student writing quality, and that these variables were distributed across all three types of aspects (linguistic, rhetorical, and strategic). Thus, it confirms that writing quality depended on all three aspects measured. This balanced approach, focused on "product" and "process" and on "quantitative" and "qualitative" method, provides an interactive and comprehensive view of L2 writing, and contributes to L2 writing instruction using realistic writing process strategies that take into account L2 writers' products resources.

INTRODUCTION

In an exploration of the unique nature of L2 writing, several empirical studies have recently focused on a direct comparison of ESL and NES writers and/or the L1 and L2 writing of ESL students (Silva, 1993a). Studies looking at written texts ("product" variables) have outnumbered those dealing with composing processes ("process" variables) and, of these product studies, more have focused on rhetorical (discourse level) than on linguistic (sentence level and below) features (Silva, 1993a). In fact, no comprehensive studies that looked at both product and process variables at the same time were located.

At the linguistic level (product), Ferris (1994) reported that native speakers had a greater number of clauses in their essays than did non-native speakers, that this length variable might be a good predictor of the holistic scores assigned to the essays, and that more advanced writers had higher means for "word length" and "words per clause" variables than did basic writers. It was also reported that non-native English writers used discourse markers more frequently at the sentence beginning than did native English writers, and that the frequent use of discourse markers might be another predictor of holistic essay scores. In the study of cohesion devices, Reid (1992) found that native English writers used far fewer pronouns and coordinate conjunctions, and far more subordinate conjunctions and prepositions than did non-native English speakers.

At the rhetorical level (product), studies examining the quality of student writing showed that topical structure analysis is a good predictor of college students' writing quality (Witte, 1983; Connor & Farmer, 1990). A recent study of Ferris (1994) showed that native English writers had the lowest ratios of

subtopics to sentences (showing a greater degree of topical focus: i.e., good writers elaborating on a few arguments, rather than introducing many different subpoints), thus this subtopics per sentence variable became a good predictor of the writing scores. Rhetorical variables obtained from the analysis of Patthey-Chavez (1988) included the categorization of the "openings" (statement of the writer's opinion on the topic) and "closings" (writer's conclusions) as being personal, impersonal, mixed, or nonexistent. In this point, Ferris (1994) found that null closings differed between basic and advanced writers, with the more advanced writers more frequently providing closings (i.e., conclusions) than did the basic writers. Further, Wong (1988) showed both a qualitative and a quantitative difference in English and in Chinese, in the use of two types of rhetorical questions: 1) an "interrogative" and 2) an "assertive". Finally, Ferris (1994) used two categories for the study: reader inclusion and counterarguments. Results showed that the more advanced native writers most frequently used counterarguments, followed by the advanced non-native writers.

Finally, at the strategic level, some studies on "process" variables have found that L2 writing was more difficult and less effective, and a closer look revealed some significant differences in the processes of planning, transcribing, and reviewing (Silva, 1993a,b/Forthcoming). With regard to planning, L2 writers did less planning at both the global and local levels (Campbell, 1990; Dennett, 1985; Jones & Tetroe, 1987). With regard to transcribing, it was more laborious, less fluent, and less productive for ESL writers, reflecting a greater concern and difficulty with vocabulary (Hall, 1990; Krapels, 1990; Moragne e Silva, 1991). There was also evidence of differences with regard to revising: ESL writers reread their texts less often (Dennett, 1985; Silva, 1990) and reflected less on their written texts (Hall, 1990; Silva, 1990), than the NES writers.

In a recent study by Hirose and Sasaki (1994), it was found that good EFL writers used writing strategies similar to those of good L1 and L2 writers: 1) planning content 2) paying attention to content and overall organization while writing, and 3) revising at the discourse level. In particular, the good writers were especially concerned with content, whereas the poor writers gave no special attention to content. These findings provided evidence for the existence of a universal writing strategy regardless of the language used (Krapels, 1990; Zamel, 1982). With regard to writing confidence, Hirose and Sasaki (1994) also reported that the good L2 writers had confidence in L2 writing because they had positive writing experiences. These researchers added that two factors (i.e., self-initiated writing experience and writing confidence) could be possible indicators of good L2 writers, although these two factors have not been identified as characteristics of good L2 writers in previous study. Crowhurst (1991) reported that knowledge of organizational structures of persuasive texts might contribute both to comprehension and to production of persuasive texts. This finding indicated that the use of discourse knowledge of persuasive/argumentative writing might

improve the quality of L2 writing. Finally, with regard to audience awareness, Connor (1990) suggested that student writers composing persuasive/argumentative essays would need to identify the presumed audience, recognize its potential opposition, and be consistent in their appeals.

Because of the lack of studies that have included both "product" and "process" variables, there is a need for L2 writing research that is more evenly focused on "product" and "process" variables; on quantitative and qualitative methodological approaches; and on subjects of different levels of education, writing background or attitude, and writing process strategies. With this line, the present study attempted to identify the predictor (both product and process) variables significantly predicting the quality of English persuasive/ argumentative writing. Mainly, this study investigated quantitative and qualitative differences (in terms of linguistic, rhetorical, and strategic variables, and in terms of writing processes and background as well) between "advanced" and "basic" writers. The present study investigated the following research questions:

1. Which variables, among all variables (product and process variables), significantly predict the quality of English persuasive writing?

2. What are quantitative and qualitative differences between native and non-native "advanced" writers, and between non-native "advanced" and "basic" writers?

METHOD

Participants

Participants in this study consisted of 1) NES students (28 American students, majoring in liberal arts) and 2) EFL students (28 Korean students in America, majoring in liberal arts, and 90 Korean students in Korea, mostly majoring in English). There were 79 undergraduate and 67 graduate students (44 men and 102 women) among a total of 146 participants. Students of technology or natural sciences were excluded in this study because they are exposed to scientific discourse with a possibly different type of persuasive structure.

Instruments and Procedures

The instruments for student writers consisted of 1) persuasive writing tasks (Appendix 1), 2) follow-up retrospective questionnaires about the writing process (Appendix 2), and 3) writing background/attitude surveys (Appendix 3). For persuasive writing tasks, two structured prompts were chosen. These prompts had previously proven successful in L2 writing studies (Carson et al., 1990). The retrospective questionnaire and the writing background survey used in the study of Hirose and Sasaki (1994) were modified and adapted to the present study. The retrospective postwriting questionnaire included various questions about writing processes, writing strategies, the degree of attention to different

components while writing, the degree of attention to writing processes, the degree of audience awareness, and the use of discourse knowledge. The writing background/attitude survey included questions about the writer's basic background, educational background in regard to composition or rhetoric, instructional background on persuasive writing, prior writing experiences both in high school and at the university, self-initiated writing experiences, and writing confidence.

For student writers, three tasks were conducted in the following sequence: 1) a persuasive writing task in English, 2) a follow-up survey on writing processes, 3) a writing background and attitude survey. These tasks were assigned at one time. Randomly, half of them were asked to write about the topic prompt A, and the other half were assigned to write about the topic prompt B. For the tasks, the participants were not be informed in advance about the topic. They were not allowed to use any reference book, not even a dictionary. A limit of 45 minutes was imposed on the writing task.

Design and Data Analysis

First, this study evaluated linguistic, rhetorical, and strategic variables of the three groups' writing products and processes, and used them as predictor variables for a multiple regression analysis. The dependent variable used in the multiple regression analysis was the score assigned by two English L2 writing specialists, who used the ESL Composition Profile (Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey, 1981). Each writer's score was the average of the two raters' scores[1] and this score was taken as a measure of the overall quality of each piece of persuasive writing.

As predictor variables (a total of 35), the following 10 linguistic variables, 13 rhetorical variables, and 12 strategic variables were obtained from the tasks assigned to the students. Linguistic variables included "length" variables (number of words, number of clauses, word length, words per clause, and clauses per sentence), "cohesion" variables (pronouns, coordinate conjunctions, subordinate conjunctions, and prepositions), and "discourse marker." Rhetorical variables included "coherence" variables (parallel, sequential, and extended parallel progressions, subtopic per clause, and topical depth), "openings" (personal and impersonal), "closings" (personal and impersonal), "rhetorical questions" (type I and type II), "reader inclusion," and "counterarguments." Strategic variables included "outline" (written outline), "revision," "composing process" (planning, transcribing, and revising), "writing confidence," "writing attention" (grammar/spelling, content, overall organization, and vocabulary choice), "discourse knowledge use," and "audience awareness."

These predictor variables were quantified for the study, as follows. Length variables were counted and calculated for each writing through hand counts and through computer search functions (i.e., the "Tools" functions of Microsoft Word Version 6.0). Cohesion device variables (Reid, 1992) were also analyzed

and calculated through hand counts. Percent of pronouns was obtained from the total number of personal and demonstrative pronouns, divided by the total number of words in a single essay; percent of coordinate conjunctions was obtained from the total number of simple coordinate conjunctions, divided by the total number of words in a single essay. Percent of subordinate conjunctions was obtained from the total number of subordinate conjunctions, divided by the total number of sentences in a single essay; percent of prepositions was obtained from the total number of prepositions, divided by the total number of words in a single essay. The number of discourse markers was obtained from the total number of sentences that began with discourse markers (e.g., "First, however, on the other hand, consequently, in conclusion," etc.), divided by the total number of clauses in a single essay.

Coherence variables were obtained through a topical structure analysis, developed by Lautamatti (1987) and followed by Connor (1990) and Ferris (1994). This analysis involved identifying the topical subject of each sentence and diagramming the relationships between sentences. These relationships were of three types: 1) parallel progressions (the topical subject was semantically identical to the topical subject of the previous sentence); 2) sequential progressions (the topical subject arose from the "comment" portion of the previous sentence); and 3) extended parallel progressions (the topical subject of a previous sentence was repeated following an intervening sequential progression). The values of these three types of progressions were obtained from the total number of relationships, divided by the total number of sentences in a single essay. Further, "subtopics per clause" was defined as the ratio of number of clauses to number of different subtopics in the writing, and "topical depth" was the longest string of sequential progressions in the writing. Openings (statement of the writer's opinion on the topic) and closings (writer's conclusions) described as being personal, impersonal, or null were obtained through an analysis based on Patthey-Chavez (1988). An example of a personal opening would be "I think..." or versus the impersonal "It seems..." Two types of rhetorical questions were counted: Type I, an "interrogative," the answer to which introduces new information; and Type II, an "assertive," a question to which a negative answer is implied (Wong, 1990). Finally, "reader inclusion" was calculated by counting the number of instances of use of first person plural pronouns (we/us) and second person pronouns (you), and "counterarguments" were obtained by counting the number of instances lexically tied to a hypothetical reader's concerns (Hays, Brandt, & Chantry, 1988).

Written outline and revision variables were identified from results of the retrospective questionnaire and writing samples. These variables were quantified as 0 or 1 according to absence or presence of written outlines and final revision after writing. Composing process variables (Silva, 1993a) were obtained from the results of the retrospective questionnaire, which used a 1 to 5 scale rating according to the degree of attention to each subprocess. Writing confidence

variable was obtained from the writing background survey and calculated by Writing Self-Efficacy Scales (Shell, Murphy, & Brunning, 1989). In quantifying writing attention variables, the 1-5 rating scales were used according to the degree of writers' attention to each component. Finally, discourse knowledge (Carrell & Connor, 1991; Wright & Rosenberg, 1993) and audience (Johns, 1993) variables were obtained from the questionnaire. The use of discourse knowledge was quantified as 0 or 1 according to no use or use of that knowledge, and in quantifying audience awareness, the 0-2 rating scales were used according to the degree of awareness shown.

In the present study, a multiple regression analysis was used to determine how well the variables predicted the quality of English persuasive writings. In addition, one-way ANOVA was used to explore quantitative differences between "advanced" and "basic" writers. In particular, this study used the qualitative analysis to investigate the role of such factors as writing background, writing processes, and writing attitude, in more detail.

RESULTS AND DISCUSSIONS

Relation of Product and Process Variables to Writing Quality

Group means of writing scores were as follows: American students = 94.71, Korean students in America = 73.63, and Korean students in Korea = 65.71. From the one-way ANOVA, the group difference in English writing scores was very significant ($F(2, 143) = 174.55$, $p < .00001$). Further, Tukey-HSD test showed significant differences among three groups.

Using SPSS, a stepwise multiple regression analysis was run with English writing score (total score) as the dependent variable and the 35 predictor variables as independent variables. Tables 1 and 2 show the results of this analysis: the stepwise multiple regression analysis and the ANOVA summary table for an overall multiple regression analysis.

In the product aspect, three significant linguistic variables were one length variable (number of words) and two cohesion variables (percent prepositions and percent subordinate conjunctions), and one significant rhetorical variable was a closing variable (impersonal closings). In the process aspect, two significant strategic variables were revision and writing confidence. In this analysis, it was found that these six variables strongly influenced the quality of English persuasive writing (the proportion of score variance accounted for by the six predictor variables was 72%).

Table 1. Results of Stepwise Multiple Regression Analysis

Step	R2	F(Eqn)	sig F	Variables	Beta In
1	.50	141.88	.000	In: Number of Words	.71
2	.59	101.50	.000	In: Writing Confidence	.35
3	.64	83.24	.000	In: Number of Clauses	-.39
4	.67	70.87	.000	In: Impersonal Closings	.19
5	.69	62.27	.000	In: Percent Prepositions	.16
6	.71	56.72	.000	In: Subordinate Conjunctions	.18
7	.70	67.64	.000	Out: Number of Clauses	
8	.72	59.42	.000	In: Revision	.12

Table 2. ANOVA Summary Table

Source	S	df	MS	F	sig F
Multiple regression	18243.69	6	3040.61	59.42	.0000
Residual	7113.19	139	51.17		
Total	25356.88	145			

R^2 = .72 (the proportion of score variance accounted for by the six variables)

Differences between Advanced and Basic Writers

In order to examine how the native and non-native "advanced" (NA and NNA) writers differed, and also how the non-native "advanced" and "basic" (NNA and NNB) writers differed, native "advanced" writers (22 students), non-native "advanced" writers (17 students) and non-native "basic" writers (17 students) were chosen from the partiipants. The selection was made on the basis of their English writing scores[2].

Quantitative Differences

The results of one-way ANOVA's showed many significant linguistic differences between native and non-native "advanced" writers (see Table 3). Among 10 variables, eight variables were significantly different between two advanced writer groups. Interestingly, it was found that there were only two significant linguistic differences between non-native "advanced" and "basic"

writers (see Table 4), both length variables (words per clause and number of words).

Table 3. Linguistic Differences between NA and NNA Writers

	Mean		
Variable	NA	NNA	F-ratio
Number of Discourse Markers	9.37	21.74	22.94*
Number of Words	607.86	416.94	14.75*
Percent Pronouns	6.54	10.35	14.00*
Percent Prepositions	0.01	8.03	13.95*
Clauses per Sentence	1.17	1.07	12.83*
Number of Clauses	35.27	24.59	10.62*
Word Length	4.81	4.53	9.95*
Percent Subordinate Conjunctions	28.63	20.89	5.21*

*$p < .05$

Table 4. Linguistic Differences between NNA and NNB Writers

	Mean		
Variable	NNA	NNB	F-ratio
-- Words per Clause	7.80	2.88	19.59*
Number of Words	416.94	294.94	9.42*

*$p < .05$

As shown in Table 3, native "advanced" writers wrote longer essays (as measured by the length variables), used more effective cohesion devices (i.e., more subordinate conjunctions, more prepositions, and fewer pronouns), and less frequently used discourse markers than did non-native "advanced" writers. In addition, Table 4 shows that non-native "advanced" writers produced more words and more words per clause than did non-native "basic" writers.

From the findings, it is confirmed that length is associated with the overall quality of writing (Crowhurst, 1991). Probably this is so because the longer an essay is, the more likely it is that the writer has done an adequate job of using significant variables of effective writing (Ferris, 1994). Further, it is supported

that limited use of personal pronouns in native speakers' essays marks more informational, detached, formal, and written discourse (Grabe, 1987; Biber, 1985). Also, the greater use of prepositions and subordinate conjunctions in native speakers' essays indicated developmental writing maturity in English. In addition, it is confirmed that ESL writers tended to use more frequently the sentence beginning with a discourse marker than did native speakers who used a variety of ways to develop topical materials (Ferris, 1994).

In the rhetorical aspect, one-way ANOVA's showed that native and non-native "advanced" writers differed in terms of counterarguments, impersonal closings, personal closings, rhetorical question type II, topical depth, and personal openings (Table 5). Table 6 shows that there was just one rhetorical difference (rhetorical question type I) between NNA and NNB writers.

Table 5. Rhetorical Differences between NA and NNA Writers

	Mean		
Variable	NA	NNA	F-ratio
Counterarguments	1.27	.29	14.22*
Impersonal Closings	.68	.29	6.42*
Personal Closings	.14	.47	5.81*
Rhetorical Question Type II	.77	.00	5.60*
Topical Depth	8.59	6.94	5.13*
Personal Openings	.27	.59	4.16*

*$p < .05$

As shown in Table 5, the differences in counterarguments and closings showed that native "advanced" writers more frequently produced two important elements of academic persuasive writing, anticipation of a reader's counterarguments and the need for a closing, or conclusion, to an argument, than did non-native "advanced" writers. This finding confirms Crowhurst's (1991) result that the more advanced writers more frequently produced these two elements in persuasive writing. Further, native "advanced" writers showed much deeper topical depth than non-native writers. It seemed that this topical depth was closely related to a greater degree of topical focus (i.e., good writers elaborating deeply on a few arguments, rather than introducing many different subpoints just at surface level). In addition, native "advanced" writers almost always used rhetorical question type II, whereas non-native "advanced" writers never used it. Further, as shown in Table 6, all of the non-native "basic" writers used rhetorical question type I, whereas non-native "advanced" writers nearly never used it. This finding

indicates that using rhetorical question type II was another writing strategy of advanced writers.

Table 6. Rhetorical Differences between NNA and NNB Writers

	Mean		
Variable	NNA	NNB	F-ratio
Rhetorical Question Type I	.18	1.00	4.80*

*$p < .05$

Finally, one-way ANOVA's showed the following strategic differences between native "advanced" and non-native "advanced" writers (Table 7). Further, non-native "advanced" and "basic" writers differed in terms of writing confidence and revision (Table 8).

Table 7. Strategic Differences between NA and NNA Writers

	Mean		
Variable	NA	NNA	F-ratio
Writing Confidence	95.72	76.71	34.28*
Vocabulary Choice	4.23	3.29	14.44*
Written Outline	.59	.24	5.36*
Overall Organization	4.32	3.76	4.56*
Revision	.68	.35	4.43*

*$p < .05$

These results confirm that writing confidence and revision were good predictors of the quality of writing, as already shown in Table 1. Further, native "advanced" writers used more written outlines, had more sensitivity of vocabulary choice, and paid more attention to overall organization while writing, than did non-native "advanced" writers.

Table 8. Strategic Differences between NNA and NNB Writers

	Mean		
Variable	NNA	NNB	F-ratio
Writing Confidence	76.71	65.19	5.51*
Revision	.35	.06	4.88*

*$p < .05$

Qualitative Differences

This qualitative analysis of the writing task and questionnaire showed that, before writing in English, a greater number of native "advanced" writers (59.1%) made their written outlines than did the non-native "advanced" writers (23.5%) and non-native "basic" writers (29.4%), and that the native "advanced" writers (68.2%) revised a little more than did the non-native "advanced" writers (35.3%), who revised much more than did the non-native "basic" writers (5.9%). It also showed that, whereas native "advanced" writers paid greater attention to their planning process, both non-native "advanced" and "basic" writers paid greater attention to their transcribing process. In terms of English writing confidence, native "advanced" writers (95.7% in the Writing Self-efficacy Scale) had more writing confidence than non-native "advanced" (76.7%) and non-native "basic" (65.2%) writers had.

Self-ratings of how much attention they paid to grammar/spelling, content, organization, and vocabulary choice while writing in English indicated that native "advanced" writers paid a little more attention to each of these components, particularly to content, than non-native "advanced" and "basic" writers. The native "advanced" writers were a little more concerned with content (4.6 in the 5-point Likert scale) than were both non-native "advanced" and non-native "basic" writers (4.3). Interestingly, the non-native "advanced" writers paid more attention to grammar/spelling (3.3) than did non-native "basic" writers (2.8). Thus, it seemed that non-native "basic" writers were not very concerned about grammar/spelling. However, all of them had the same priority order of these writing components: content > organization > vocabulary > grammar/spelling. In terms of discourse knowledge use, the native "advanced" writers (77.3%) reported keeping a little more what they know about the typical way of writing a persuasive text in mind, than did the non-native "advanced" writers (64.7%), who used much more of their discourse knowledge for writing than non-native "basic" writers did (47.1%). Finally, in terms of audience awareness, native "advanced" (45.5%) and non-native "advanced" (47.1%) writers

tried more to write so that their specific readers could follow their argument easily, than did non-native "basic" writers (17.7%).

The questionnaire asked whether the participants planned before beginning to write. Results showed that, before writing in English, a greater number of native "advanced" writers (77.3%) planned than that both of non-native "advanced" (52.9%) and of non-native "basic" (52.9%) writers. All of the planners, whether "advanced" or "basic" writers, concerned themselves with content before the actual writing. Half of the native and non-native "advanced" writers who planned thought about the direction, position, or organization of the composition, whereas some of the non-native "basic" writers thought about the meaning of a given topic itself. Further, the questionnaire asked how the participants managed to continue writing, and how much attention they paid to such items as grammar/spelling, content, overall organization, and vocabulary choice while writing. From the results, non-native "advanced" and "basic" writers seemed to approach English writing differently in terms of use of translation, fluency, and coherence. Over half of non-native "advanced" writers (64.7%) wrote directly in English without mentally translating, and only 17.6% of them used translation. Very few non-native "basic" writers (17.6%) wrote directly in English. Instead, 58.8% of them initially generated their ideas in Korean and then translated them into English. Thus, it seemed that translation-free writing (i.e., direct writing) in L2 contributed to the quality of L2 writing. Over half of non-native "advanced" writers (58.8%) reported they wrote whatever came into their minds. Just a few of the non-native "basic" writers (35.3%) wrote whatever came into their minds, and most of them (94.1%) stopped and thought for a while, when they got stuck. Their low production rate (number of words per composition = 294.9) might have been due to their use of word-for-word or sentence-for-sentence translation, as well as frequent pauses while writing. Conversely, non-native "advanced" writers' translation-free writing and much greater fluency contributed to their fluent writing and high production rate (number of words per composition = 416.9). In terms of writing coherence, 70.6% of non-native "advanced" writers tried to write so that the sentences would flow smoothly, whereas only 35.3% of non-native "basic" writers reported doing so.

Almost all of the native "advanced" writers (95.5%) wrote in English with overall organization in mind, whereas just over half of non-native "advanced" and non-native "basic" writers (64.7%) did so. Also native "advanced" writers (81.8%) were more likely to focus on writing coherently than were non-native "advanced" writers (70.6%). Paying attention to the overall organization and focusing on writing coherence, therefore, were writing strategies that the advanced writers employed. Furthermore, a few of the native "advanced" writers specified their writing process as "Other." Some of these (13.6%) reported they had often referred to their initial outlines, and others (9.1%) reported they had kept a conversation in mind, as if they were speaking. Finally, the questionnaire asked what the participants did after writing. The analysis showed that over half

of native "advanced" writers revised (68.2%) the compositions once written, whereas fewer non-native "advanced" writers revised (35.3%). Almost none of the non-native "basic" writers reported revising (i.e., just 5.9% of them revised). Further, when revising, native and non-native "advanced" writers went about the task in different ways: the native "advanced" writers dealt with various levels of revision (e.g., form and content at the discourse level: spelling, sentence, sentence transition, and organization), whereas most of the non-native "advanced" and "basic" revisers only concentrated on form at the sentence level.

From the writing background/attitude survey, the "advanced" (both NA and NNA) writers turned out to be older than the "basic" (NNB) writers. Interestingly, the "basic" writers consisted of a greater percentage of males (47.1%) than did the "advanced" writers (27.3% for NA or 29.4% for NNA). Also the "basic" writers consisted of a greater percentage of undergraduate students (82.4%) than did the native and non-native "advanced" writers (31.8% for NA or 29.4% for NNA). In terms of English composition instruction, over half of native "advanced" writers (59.1%) had taken some English composition course, whereas only a few of non-native "advanced" (17.7%) and non-native "basic" (5.9%) writers had taken those courses. In addition, most of the native "advanced" writers (81.8%) had been taught how to write persuasive/argumentative essays in English, compared to 23.5% of the non-native "advanced" writers and none of non-native "basic" writers. Another difference was that non-native "advanced" writers had received more years of formal English instruction (11.9 years) than had non-native "basic" writers (9.7 years). In addition, the non-native "advanced" writers had spent longer in an English speaking country (2.7 years) than had the non-native "basic" writers (0.7 years). Both groups of writers, however, did not seem to differ very much in the writing score they had received when writing in L1. Further, the non-native "advanced" and "basic" writers were slightly different in terms of the amount of required English writing in high school. A few of the non-native "advanced" writers (17.6%) wrote more than five pages per semester, whereas none of the non-native "basic" writers did so. In particular, in terms of the amount of self-initiated English writing, almost all of the native "advanced" writers (90.9%) and almost half of the non-native "advanced" writers (47.1%) wrote more than 5 pages per semester, whereas very few of the non-native "basic" writers (5.9%) did so.

CONCLUSIONS AND IMPLICATIONS

With the purpose of investigating quantitative and qualitative differences between native and non-native "advanced" writers, and between non-native "advanced" and "basic" writers, this study compared "product" and "process" variables involved in an analysis of the English persuasive writing of native English speakers and non-native English speakers. In this study, a number of

"product" and "process" variables that significantly differentiated between native and non-native "advanced" writers, and also between non-native "advanced" and "basic" writers were also good predictors of student writing quality. Interestingly, these variables were distributed across all three types of aspects (linguistic, rhetorical, and strategic), as shown earlier. Thus, it confirms that writing quality depended on all three aspects measured (linguistic, rhetorical, and strategic aspects). Though "product" variables seemed to be prominent in this analysis, it would be a mistake to privilege "product" (linguistic and rhetorical) variables at the expense of neglecting important "process" (strategic) variables. Conversely, it would be an equal mistake to ignore the "product" variables. In fact, many ESL/EFL writing teachers today accept that process writing pedagogies are applicable to academic writing, and are concerned with final products as well as students' writing processes (Susser, 1994). Thus, this balanced approach provides the interactive and complementary effect of linguistic, rhetorical, and strategic variables on L2 writing.

On this point, this study provides a useful model of L2 writing instruction using such features as [± linguistic], [± rhetorical], and [± strategic]. It is possible to categorize essays that have the nature of the advanced writers as [+ linguistic, + rhetorical, + strategic] and essays that fail to have that nature as [- linguistic, - rhetorical, - strategic]. In this way, student writers fall into one of various combinations of these features based on the relative strength of their linguistic, rhetorical, and strategic skills. If student essays are evaluated based on such a separate but balanced consideration of their "product" and "process" skills, they could receive a workable sequence of writing instruction that would help them improve their areas of weakness and lead them to mastery over writing in general. The qualitative analysis of this study showed that fluent writing, translation-free writing, focusing on writing coherence, and self-initiated writing were good strategies that the advanced L2 writers employed. This analysis was used in order to capture important information that was not captured by the quantitative analysis alone. Thus, this study was more evenly distributed in its use of quantitative and qualitative designs.

The limitations of the present study suggest several directions for future research on L2 writing. Most of the Korean students in America in this study were international students, not ESL immigrant students. For more significant L2 writing research, studies examining writing products and processes of immigrant students should be added. Further, additional research should consider the effects of different types of writing tasks such as a comparison between "descriptive" or "expository" writing and "persuasive" or "argumentative" writing and the effects of different subject samples (various EFL students, not limited Korean students), in order to determine whether certain tasks are more problematic for non-native English writers and what sort of "product" and "process" variables are most effective in L2 (English) writing. Because this study dealt with just the first drafts of the students, rather than multiple-drafts, future

research should cover and the analysis of multiple drafts (Ferris, 1995), to explore the developmental process of learning to write in English.

Finally, the present study has some implications for L2 writing pedagogy. Non-native English writers may come into L2 (English) writing situations with a different set of linguistic, rhetorical, and strategic expectations than do native English writers. Thus, certain elements of English persuasive writing such as cohesion devices, counterarguments, impersonal closings may be more problematic for non-native English writers than for NES writers, due to the non-native English writers relative lack of exposure to formal discourse in English. Accordingly, for non-native English writers, both modeling (especially self-initiated writing) and instruction in the writing structure of English persuasive texts may be effective in improving their L2 (English) writing quality (Crowhurst, 1991). In particular, as mentioned in the study of Silva (1993a), L2 writing instruction should devote more time and attention across the board to linguistic, rhetorical, and strategic concerns. L2 writing instruction needs to include more work on planning and revising processes, so that L2 writers may make the actual writing more manageable, and more effective. Ideally, L2 writing instruction needs to provide realistic writing "process" strategies for planning, transcribing, and revising that take into account L2 writers' "product" (linguistic and rhetorical) resources.

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APPENDIX 1. Writing Prompts

Writing Task (Prompt A)
Time--45 minutes

[Instruction]
Write a persuasive/argumentative essay in English for the following topic.
[Topic]
Imagine that you are with a group of friends and the following topic comes up in discussion: "Some people believe that it is important for them to be part of a

group in order to achieve their goals. Others believe that they should try to be unique individuals in order to reach their objectives."

Which position do you prefer? In writing your composition, imagine trying to persuade your friends to take on your own position. Support your position with specific reasons and/or examples from your own experience, observations, or reading.

Writing Task (Prompt B)
Time--45 minutes

[Instruction]
Write a persuasive/argumentative essay in English for the following topic.
[Topic]
Imagine that you are with a group of friends and the following topic comes up in discussion: "As certain professions become more crowded, students of today are faced with a difficult choice. Some students choose a field they wish to enter even though job prospects are limited. Others choose a field in which they are less interested but which offers more job opportunities."

Which position do you prefer? In writing your composition, imagine trying to persuade your friends to take on your own position. Support your position with specific reasons and/or examples from your own experience, observations, or reading.

APPENDIX 2. Retrospective Postwriting Questionnaire for Writing in English

1. Before writing
1) Did you start writing right away? Yes____ No____
2) If your answer to 1) is "No," what did you do first? Write the kind of things you do specifically. (e.g., I wrote down the outline. I thought about what I was going to write. etc.)

2. In writing
1) How did you manage to continue writing? Check as many as apply. If you did other than what is listed below, please specify.
a. I generated ideas in L1 first, then translated them into L2. (omitted for NES)
b. I wrote directly in L2. (Omitted for NES)
c. I wrote whatever came to my mind.
d. I wrote with the overall organization in mind.
e. I tried to write as much as possible.
f. I tried to write so that the sentences would flow smoothly.

g. When I got stuck, I stopped and thought for a while.
h. When I got stuck, I continued writing without stopping, and later went back to where I got stuck.
i. Other (Please specify)_____
_____
_____
_____

2) When you were writing, how much attention did you pay to the following items?

	Not at all		Little		Fairly	Very
a. grammar	1	2	3	4		5
b. spelling	1	2	3	4		5
c. content	1	2	3	4		5
d. overall organization	1	2	3	4		5
e. vocabulary choice	1	2	3	4		5

3. After writing
What did you do after writing? Please specify. (e.g., I did nothing once I finished writing. I reread to check whether the organization was appropriate or not and revised. I added to the first version where insufficient. etc.)

4. In the whole writing process, how much attention did you pay to the following process?

	Not at all		Little	Fairly	Very
1) planning (before writing)	1	2	3	4	5
2) transcribing (in writing)	1	2	3	4	5
3) revising (after writing)	1	2	3	4	5

5. Which of the following items did you do in your writing process. (Check only one)

a. I developed my argument freely without considering my specific readers.
b. I developed my argument with a slight consideration of my specific readers.
c. I tried to write so that my specific readers can follow my argument easily.

6. 1) In your writing process, did you keep what you know about the typical ways of writing an English persuasive/argumentative text in mind?
Yes_____ No_____

2) If your answer is "Yes," list as many of the characteristics as you can think of that describes English persuasive/argumentative writing.

APPENDIX 3. L1/L2 Writing Background/Attitude Survey

1. Age_____ Sex_____

2. Native Language_____ 3. Major_____

4. Educational Level (Undergraduate, MA, or Ph.D. students)_____

5. About studying English (Omitted for NES):
i) How long have you studied English at school?
ii) Have you studied in an English speaking country? If so, where and how long?

6. About taking composition or rhetoric courses:
i) Have you taken any composition or rhetoric courses in an American university?
ii) If yes, write the name of the course_____

7. About the instruction of a persuasive/argumentative writing: Have you been taught how to write a persuasive essay in English?

8. About writing in English

i) Which of the following writing types have you done so far?
(Check as many as apply)

a. diary
b. personal expressions on reading materials
c. literary work (stories, poems, etc.)
d. summaries or paraphrases of reading materials
e. short papers or term papers
f. research reports
g. research proposal
h. research articles
i. other (Please specify)_____

ii) Please estimate the amount of required writing you did while in high school.
(Check only one)

a. more than 20 pages per semester
b. 11-20 pages per semester
c. 5-10 pages per semester
d. less than 5 pages per semester
e. none

iii) Please estimate the amount of required writing you did while in the university. (Check only one)

a. more than 20 pages per semester
b. 11-20 pages per semester
c. 5-10 pages per semester
d. less than 5 pages per semester
e. none

iv) Which of the following kinds of writing have you done on your own (not connected to school work, that is, self-initiated writing)?

a. diary
b. personal expressions on reading materials
c. literary work (stories, poems, etc.)
d. summaries or paraphrases of reading materials
e. short papers or term papers
f. research reports
g. research proposal
h. research articles
i. other (Please specify)_____

v) Please estimate the amount of self-initiated writing you do. (Check only one)

a. more than 20 pages per semester
b. 11-20 pages per semester
c. 5-10 pages per semester
d. less than 5 pages per semester
e. none

9. About English writing confidence

[On a scale from 0 (no chance) to 100 (completely certain), how confident are you that you can perform each of the following items? You may use any number between 0 and 100.]

1. Correctly spell all words in a one page passage _____
2. Correctly punctuate a one page passage _____
3. Correctly use parts of speech (i.e., nouns, verbs, adjectives, etc.) _____
4. Write a simple sentence with proper punctuation and grammatical structure _____
5. Correctly use plurals, verb tenses, prefixes, and suffixes _____
6. Write compound and complex sentences with proper punctuation and grammatical structure _____
7. Organize sentences into a paragraph so as to clearly express a topic _____

8. Write a paper with good overall organization (e.g., ideas in order, effective transition, etc.) _____
9. Write something for personal purposes (e.g., writing a personal letter) _____
10. Write something for academic purposes (e.g., writing a term paper) _____

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[1] Interrater reliability was high:the Pearson correlation coefficient was .89.

[2] Native "advanced" writers had scores more than one standard deviation above the mean of the whole writing samples. Non-native "advanced" writers had scores more than one standard deviation above the mean of non-native speakers' writing samples, whereas non-native "basic" writers were one standard deviation below that mean.